Metabolism in Acute and Chronic Leucæmia.—MAGNUS-LEVY (*Archiv für path. Anat., etc.*, Bd. clii., H. 1) gives the result of his examinations on the extensive material in the Urban (Berlin) Hospital. The differences in metabolism in the two classes of cases were very striking. In acute cases there was a large amount of urine and notable increase of total nitrogen and uric acid, with increasing excessive excretion of nitrogen up to the end. In chronic leucæmia there was a moderate amount of urine and normal nitrogen, without an excessive excretion before death. An excessive metabolism is characteristic of acute leucæmia, but, as the author shows from his own material and the literature, this is not constant. In contradiction to many other investigators, the author denies a constant relation between the number of leucocytes and the excretion of alloxur bodies, but finds these in some cases directly, in others inversely, proportional. On the other hand, he thinks that the constant loss of blood in acute leucæmia increases the albumin metabolism directly. He also thinks that the sudden diminution in oxidation injures the cells and leads to increased breakdown. One case showed an enormous increase of phosphoric acid, which the author thinks was derived from nuclein. In five cases of leucæmia he found uric acid four times; hypoxanthin was always present, sometimes in large amounts; xanthin only in traces; pleural and pericardial alloxur bodies in proportions similar to those in the blood, but the former contained less, corresponding to the smaller number of cells.

Pyopneumothorax Examined by X-Rays.—KIENBOCK (*Wiener klin. Wochenschrift*, 1898, No. 22) has made some interesting observations on a case of closed pyopneumothorax. The latter has existed for several months, on the left side. The heart and diaphragm, at first much displaced, gradually returned to their former positions, though the heart and mediastinum became adherent to the right pleura. The right lung showed signs of a tuberculous infiltration. The left lung was infiltrated and retracted. The fluorescent screen showed differences corresponding to the changes indicated by the physical signs, and not necessary to describe. The most interesting phenomena consisted of certain movements visible in the screen. In inspiration the level of the fluid rose about three-fourths the width of an intercostal space. The level of the fluid, in addition, showed waves independent of the respiratory changes, partly synchronous with the heart-beat, but there were also waves, seen when the breath was held, due to shaking of the floor. Percussion of the thorax also caused visible waves, and shaking the patient caused waves of considerable height, up to 10 cm. The author suggests several explanations for the respiratory change of the level of the fluid. It might be due to a contraction of the diaphragm, made convex downward by the fluid, or to increased abdominal pressure forcing the diaphragm up. Narrowing of the left side by displacement of the mediastinum was excluded by inspection with the screen. The pulsation of the fluid seems to confirm Traub's theory of the cause of pulsating empyema, viz., by direct transmission of the heart-beat to the fluid. That it was not due in this case to compression of air could be demonstrated by putting the patient in such a position that the heart was surrounded by air. The pulsation ceased, and only began again when the apex was submerged. The absence of visible or palpable pulsation was, perhaps, due to the low tension of the air in the thorax, or to the thickening of the costal pleura, and makes it probable that pulsating empyema is much more frequent than ordinary methods of examination would lead us to think.

Severe Cerebral Symptoms and Death from Excessive Dilatation of the Stomach.—VON JÜRGENSEN reports (*Deutsches Archiv für klin. Med.*, Bd. lx. p. 327) the case of a farmer, aged forty-three years, who for ten years had occasional attacks of pain, fulness, and sense of oppression in the epigastrium after meals. Anorexia and excessive appetite alternated; during the attacks vomiting was frequent. The patient was emaciated, pale, and sallow. The abdomen was distended, the superficial veins prominent. The stomach was much dilated in all directions, but the exact outlines were not made out during life. The patient refused mechanical treatment, and was treated by wet-packs, diet, rest in bed, and papain internally. The latter, the patient thought, lessened the tympanites, but the general condition became distinctly worse. The patient complained of great weakness and severe thirst. Water was vomited as fast as swallowed. The thirst was so great that in one night ten litres of water were drunk and vomited. Next morning the intellect was slightly clouded, there were atactic movements of the arms and legs, later general spasms. The symptoms grew worse. The urine, scanty before, was suppressed. The thirst and vomiting persisted. Coma came on, and irregular breathing, cyanosis, cold extremities, loss of reflexes, spasms, and vomiting continued until death ensued, two days after the change for the worse. Autopsy showed the greater curvature of the stomach at the level of the umbilicus; the lesser curvature formed an acute angle, the sides almost touching. The greater curvature measured 55 cm., the height from the fundus to the cardia 20 cm., the depth 14 cm. One centimetre below the pylorus was a stricture of the duodenum, caused by a ring-shaped scar. The duodenum above this and the pyloric part of the stomach were dilated; the duodenum between the stricture and the pyloric ring was the seat of a cicatrized ulcer, about 2 cm. in diameter, continuous with the constricting scar-tissue. The mucous membrane of the stomach was thin and smooth in the pyloric portion, unusually folded in the fundus, where there was slight *état mammelonné*, the two parts sharply separated by the fold of the lesser curvature. The muscular coat of the stomach was hypertrophic. The œsophagus was dilated and hypertrophic, the epithelium thickened in areas. The bladder contained 100 c.c. of urine, specific gravity 1020. There was a small amount of albumin, but no sugar. The other organs showed no alterations bearing on the case.

That the death was due to an intoxication of some kind was clear, and the author, showing that diabetes, cancer, and cholæmia were not present, in view of the enormous thirst and the failure of absorption, ascribes the fatal symptoms to lack of water in the blood and tissues and intoxication from the suppression of urine. It will be remembered that Kussmaul, in his earliest work on dilatation of the stomach, looked on lack of water from lessened absorption as of great importance, but afterward abandoned the idea. Von Jürgensen, however, is not willing to abandon the theory entirely, but would investigate each case in order to determine the precise